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EXAMINER

GWARTNEY, ELIZABETH A

ART UNIT	PAPER NUMBER
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1794

NOTIFICATION DATE	DELIVERY MODE
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05/11/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/530,920	Applicant(s) MIRANDA ET AL.	
	Examiner Elizabeth Gwartney	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

1. The Amendment filed 02/20/2009 has been entered. Claims 1-32 are pending.
2. The previous 112 2nd Paragraph rejections have been withdrawn in light of applicant's amendments made 02/20/2009.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-6, 8-15, 17-23, 25, 27 and 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steele et al. (WO 83/00278) in view of Grillo et al. (US 5,470,581).

Regarding claim 1, Steele et al. disclose a nut composition provided with an edible coating (Abstract), which comprises:

- a nut(*see* peanut – Abstract), and
- a layer of coating for said nut that comprises an edible film (Abstract), said film comprising an edible compound selected from the group consisting of acacia gum, cellulose derivatives and dextrins (p.8/L25-p.9/L3).

While Steele et al. disclose an edible film comprising an edible compound selected from the group consisting of acacia gum, cellulose derivatives and dextrins (P.8/L25-p.9/L3), the reference does not explicitly disclose hydroxypropylmethyl cellulose (HPMC), hydroxypropyl cellulose (HPC), methyl cellulose (MC), carboxymethyl cellulose (CMC), ethylmethyl cellulose (EMC), maltodextrin (MD) or their mixtures.

Grillo et al. teach a protective film for coating food forms comprising a mixture of maltodextrin and a cellulose derivative (Abstract, C2/L1-5) wherein the cellulose derivative includes methyl cellulose (MC), hydroxypropyl cellulose (HPC), hydroxypropylmethyl cellulose (HPMC), or carboxymethyl cellulose (CMC) (Abstract, C1/L60-C2/L5). Further, Grillo et al. teach maltodextrin, in combination with cellulosic polymers, exhibits excellent adhesive qualities, enhanced gloss characteristics, and reduced incidence of cloudiness (C5/L35-39).

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Steele et al. and Grillo et al. are combinable because they are concerned with the same field of endeavor, namely, compositions for edible films. It would have been obvious to one of ordinary skill in the art at the time of the invention to have added maltodextrin and cellulosic polymers, as taught by Grillo et al., to the acacia gum film coating of Steele et al. for the purpose of improving the clarity of the coating. Further, doing so would improve the adhesive and gloss characteristics of the protective film coating.

Regarding claims 2-3, modified Steele et al. disclose all of the claim limitations as set forth above. Further, Steele et al. disclose that said nut is selected from the group consisting of peanuts (Abstract) wherein said nut is whole (p.4/L29-30).

Regarding claims 8 and 11, modified Steele et al. disclose all of the claim limitations as set forth above. Further, Steele et al. disclose that said edible film further comprises a protein (p.9/L1) and the nut composition further comprises an additive selected from the group consisting of sweeteners (*see* sugar - Abstract).

Regarding claim 9, modified Steele et al. disclose all of the claim limitations as set forth above. Further, Steele et al. disclose that the quantity of edible compound present on the coated nut, expressed in dry weight in relation to the total weight of the coated nut lies between 0.05 and 2% by weight (p.9/L9-11).

Regarding claim 10, modified Steele et al. disclose all of the claim limitations as set forth above, however, Steele et al. do not disclose a nut composition in which the thickness of the coating layer of said nut, which comprises an edible film, ranges from 5 μ m to 1 mm. As hardness and continuity of the coating are variables that can be modified, among others by adjusting said thickness of coating, with said hardness and continuity of the coating both

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increasing as the coating thickness is increased, the precise coating thickness would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. As such, without showing unexpected results, the claimed coating thickness cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the thickness of the edible coating of Steele et al. to obtain the desired balance between the continuity of the coating and the hardness of the final nut product (*In re Boesch*, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (*In re Aller*, 105 USPQ 223).

Regarding claims 12-15, Steele et al. disclose a method for producing a nut coated with an edible coating (Abstract) according to claim 1, as set forth above, which comprises the steps of:

- applying a filmogenic solution that comprises an edible compound selected from the group consisting of acacia gum (i.e. gum acacia), cellulose derivatives and dextrans on the surface of a nut to be coated (Abstract, p.8/L25-p.9/L3) and
- drying the filmogenic solution deposited on the surface of said nut to be coated (see roasting – p. 10/L12-24).

While Steele et al. disclose an edible film comprising an edible compound selected from the group consisting of acacia gum, cellulose derivatives and dextrans (p.8/L25-p.9/L3), the reference does not explicitly disclose hydroxypropylmethyl cellulose (HPMC), hydroxypropyl

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cellulose (HPC), methyl cellulose (MC), carboxymethyl cellulose (CMC), ethylmethyl cellulose (EMC), maltodextrin (MD) or their mixtures.

Grillo et al. teach a protective film for coating food forms, comprising a mixture of maltodextrin and a cellulose derivative (Abstract, C2/L1-5) wherein the cellulose derivative includes methyl cellulose (MC), hydroxypropyl cellulose (HPC), hydroxypropylmethyl cellulose (HPMC), or carboxymethyl cellulose (CMC) (Abstract, C1/L60-C2/L5). Further, Grillo et al. teach maltodextrin, in combination with cellulosic polymers, exhibits excellent adhesive qualities, enhanced gloss characteristics, and reduced incidence of cloudiness (C5/L35-39).

Steele et al. and Grillo et al. are combinable because they are concerned with the same field of endeavor, namely, compositions for edible films. It would have been obvious to one of ordinary skill in the art at the time of the invention to have added maltodextrin and cellulosic polymers, as taught by Grillo et al., to the acacia gum film coating of Steele et al. for the purpose of improving the clarity of the coating. Further, doing so would improve the adhesive and gloss characteristics of the protective film coating.

Regarding claim 17, modified Steele et al. disclose all of the claim limitations as set forth above. Further, Steele et al. disclose that said edible film further comprises a protein (p.9/L1).

Regarding claim 18, modified Steele et al. disclose all of the claim limitations as set forth above. Further, Steele et al. disclose said filmogenic solution comprises one or more edible compounds in a concentration between 1% - 50% by weight (see from about 5 to 15% by weight - p.10/L8-9).

Claim 19, modified Steele et al. disclose all of the claim limitations as set forth above. Further, Steele et al. disclose a filmogenic solution comprising an edible compound selected

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from the group of cellulose derivatives in a concentration between 2 and 14% (see from about 2 to about 10% of the weight of the coating (p.9/L12-13).

Regarding claim 20, modified Steele et al. disclose all of the claim limitations as set forth above. Steele et al. disclose said filmogenic solution is applied on the nut to be coated in a rotary drum by dripping (*see* rotatable coating reel and rate of addition (i.e. dripping - p.7/L17-18, p.8/L13).

Regarding claim 21, modified Steele et al. disclose all of the claim limitations as set forth above. Further, Steele et al. disclose that the quantity of edible compound present on the coated nut, expressed in dry weight in relation to the total weight of the coated nut lies between 0.05 and 2% by weight (p.9/L9-11).

Regarding claim 22, modified Steele et al. disclose all of the claim limitations as set forth above and Steele also discloses that the drying of said filmogenic solution deposited on said nut to be coated is done with air at a temperature equal to or lower than 200°C (see from about 150° to about 180°C – p.10/L17-18).

Regarding claim 23, modified Steele et al. disclose all of the claim limitations as set forth above. Further, Steele et al. disclose that the drying of said filmogenic solution deposited on said nut to be coated comprises the addition of a compound in powder form, selected from the group consisting of an edible protein (i.e. peanut skins – p.5/L14-20, p.9/L14-21).

Regarding claim 25, Steele et al. disclose all of the claim limitations as set forth above. Further, Steele et al. disclose that the drying of said filmogenic solution deposited on said nut is done in an oven (p.10/L14).

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Regarding claim 27, modified Steele et al. disclose all of the claim limitations as set forth above. While Steele discloses a method for producing a nut coated with an edible coating including application and drying stages, the reference does not explicitly disclose repeating the stages a variable number of times. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have repeated the application and drying stages. Mere duplication of the application and drying steps has not patentable significance unless a new and unexpected result is produced.

Regarding claims 28 and 30, modified Steele et al. disclose all of the claim limitations as set forth above. Steele et al. also disclose that layers are formed which are the same or different (Abstract). Further Steele et al. disclose the addition of one or more additives to said coated nut (*see sugar – Abstract*).

Regarding claims 31-32, modified Steele et al. disclose all of the claim limitations as set forth above and further discloses that the nut comprises an additional coating selected from the group consisting of sugar and salt, which covers said coated nut (p.3/L27-32, p.5/L14-20, p.9/L14-30). Steele et al. also disclose a derivative of a nut which comprises a nut obtainable by means of the method according to claim 12, and further comprises an additional coating selected from the group consisting of sugar and salt, which covers said coated nut (p.3/L27-32, p.5/L14-20, p.9/L14-30).

7. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steele et al. (WO 83/00278) in view of Grillo et al. (US 5,470,581) as applied to claim 1 and 12, and further in view of Kester et al. (“An Edible Film of Lipids and Cellulose Ether”).

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Regarding claims 7 and 16, modified Steele et al. disclose all of the claim limitations as set forth above. While Steele et al. disclose said edible compound comprises cellulose derivatives, the reference does not explicitly disclose said edible compound comprises a mixture of (i) a cellulose ether and (ii) a lipid or a combination of various lipids.

Kester et al. teach an edible film comprising a cellulose ether and lipid (Abstract). Further, Kester et al. teach that lipid-based films effectively retard transport of moisture (Abstract).

Steele et al., Grillo et al. and Kester et al. are combinable because they are concerned with the same field of endeavor, namely, edible films comprising cellulose derivatives. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a mixture of lipid and cellulose ether, as taught by Kester et al., in the edible film coating of Steele et al. for the purpose of mitigating moisture migration.

8. Claims 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steele et al. (WO 83/00278) in view of Grillo et al. (US 5,470,581) as applied to claim 12, and further in view of Fellows (“Food Processing Technology-Principles and Practice”).

Regarding claims 24 and 26, while modified Steele et al. disclose drying of said filmogenic solution in an oven, the reference does not disclose drying in a rotary drum by means of a blower or in a drying tunnel that comprises areas for hot air drying, infra-red lamp radiation drying, and cold air cooling. Fellows teaches that rotary drum and tunnel driers were well known in the art at the time the invention was made (p. 324). Further, it was well known that tunnel drying includes multiple stages with the first stage being the hottest, the exit stage the

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coldest, and the intermediate stage can include infra-red radiation. Fellows also teaches that the type of dryer chosen will depend on cost, capacity, fuel efficiency, and labor requirement (p.325). As the instant specification is silent to unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use any drier type, including a rotary drum drier and a drying tunnel with three stages to dry the filmogenic solution of Steele et al. because it would amount to nothing more than the use of a known drier for its intended use in a known environment to accomplish entirely expected result.

9. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steele et al. (WO 83/00278) in view of Grillo et al. (US 5,470,581) as applied to claim 12 above, and further in view of Seaborne et al. (US 4,820,533).

Regarding claim 29, modified Steele et al. disclose all of the claim limitations as set forth above, however, Steele et al. do not disclose the inclusion of one or more additives to said filmogenic solution.

Seaborne et al. teach of edible barriers comprising plasticizers (C8/L25-40). Further, Seaborne et al. teach that plasticizers soften edible barriers made from cellulose ethers making them less brittle (C8/L25-40).

Steele et al., Grillo et al. and Seaborne et al. are combinable because they are concerned with the same field of endeavor, namely, edible films useful for foods. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a plasticizer, as taught by Seaborne et al., as an additive in the filmogenic solution of Steele et al. for the purpose of making a less brittle edible film coating.

Response to Arguments

10. Applicant's arguments filed 02/20/2009 have been fully considered but they are not persuasive.

Applicants argue a person of ordinary skill in the art would not be motivated to combine Steele et al. and Grillo et al. to make a coating for a nut that is protective against oxidation because Grillo et al. teaches away from the coating of the present invention. Specifically, applicants explain that Grillo et al. teaches that a plasticizer is an essential component of a coating.

While the presently claimed invention requires a nut and a layer of coating wherein the coating comprises an edible compound selected from the recited compounds, given the term "comprising" is open-ended, other ingredients, including plasticizer, may be added and still result in a product within the scope of the present invention.

There is no disclosure in Grillo et al. that would discourage a skilled artisan from using a composition comprising a combination of maltodextrin, cellulose derivative and plasticizer in a protective coating for nuts. In fact, one have been motivated to use a composition of maltodextrin, cellulose derivatives and plasticizer, as taught by Grillo et al. in the acacia gum film coating of Steele et al. to improve the adhesive and gloss characteristics of the protective film coating.

Further, applicants argue that a person of ordinary skill in the art would not be motivated to combine Steele et al. and Grillo et al. because Steele et al. teaches a tacky coating with a

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necessary degree of tackiness to adhere particulate seasoning material while Grillo et al. teach that a detackifier may be desirable.

Given Grillo et al. teaches that optionally or in some cases, a detackifier may be dispersed into the coating (Abstract, C1/L64-65), it is clear that a coating composition without detackifier is within the scope of the invention taught by Grillo et al. Regardless, Grillo et al teaches a certain concept, namely, the use of a maltodextrin and cellulose derivative combination to impart adhesive and gloss characteristics in an edible coating, and in combination with Steele et al., disclose the presently claimed invention.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Gwartney whose telephone number is (571) 270-3874.

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The examiner can normally be reached on Monday - Thursday; 7:30AM - 5:00PM EST, working alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. G./

Examiner, Art Unit 1794

/KEITH D. HENDRICKS/

Supervisory Patent Examiner, Art Unit 1794